



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/774,200

02/06/2004

Philip Orlik

6995

22199 7590 10/01/2008  
MITSUBISHI ELECTRIC RESEARCH LABORATORIES, INC.  
201 BROADWAY  
8TH FLOOR  
CAMBRIDGE, MA 02139

EXAMINER

YUN, EUGENE

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

10/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/774,200	<b>Applicant(s)</b> ORLIK ET AL.	
	<b>Examiner</b> EUGENE YUN	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 3-6, and 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Choi et al. (US 7,274,707).

Referring to Claim 1, Choi teaches a method for communicating data between terminals in heterogeneous communications network, comprising:

broadcasting periodically a first beacon in a first signal format (see col. 2, lines 32-34 noting the first OFDM modulation scheme), the first beacon defining a start of a contention period and a start of a contention free period, the contention free period for communicating data between the terminals (see col. 2, lines 59-67); and

broadcasting a second beacon in a second signal format during the contention free period, the second beacon defining the start of the contention period and the start of the contention free period (see col. 2, lines 39-46 noting the second DSSS/CCK modulation scheme as the second signal format).

Claim 10 has similar limitations as claim 1.

Referring to Claim 3, Choi also teaches broadcasting a plurality of second beacons in a plurality of different signal formats during the contention free period (see col. 4, lines 4-12 noting the sub parts).

Referring to Claim 4, Choi also teaches the first signal format predetermined (see col. 2, lines 32-34 noting the first OFDM modulation scheme).

Referring to Claim 5, Choi also teaches the first signal format based on a priority of terminals in the heterogeneous network (see col. 3, lines 36-49).

Referring to Claim 6, Choi also teaches the first signal format based on a bandwidth of terminals in the heterogeneous network (see col. 4, line 64 to col. 5, line 3).

Referring to Claim 9, Choi also teaches the terminals of the heterogeneous network sharing a single frequency band (see col. 1, lines 26-35 noting that the 2.4 GHz is shared).

Referring to Claim 11, Choi also teaches the coordinator communicating with any terminal in the network in any predetermined signal format (see col. 2, lines 32-34).

Referring to Claim 12, Choi also teaches the first and second terminal communicating indirectly with each other via the coordinator terminals (see col. 2, lines 39-53).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi in view of Gubbi et al. (US 6,754,176).

Referring to Claim 2, Choi does not teach the contention free period includes assigned and unassigned slots, and in which the second beacon is broadcast during time periods of unassigned slots. Gubbi teaches the contention free period includes assigned and unassigned slots, and in which the second beacon is broadcast during time periods of unassigned slots (see col. 2, line 63 to col. 3, line 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Gubbi to said device of Choi in order to better reduce interference between beacon signals.

Referring to Claim 7, Gubbi also teaches the slots assigned according to a bandwidth of terminals in the heterogeneous network (see col. 2, lines 24-30).

Referring to Claim 8, Gubbi also teaches the slots assigned according to a priority of terminals in the heterogeneous network (see col. 7, lines 32-41).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUGENE YUN whose telephone number is (571)272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571)272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eugene Yun  
Primary Examiner  
Art Unit 2618

/Eugene Yun/  
Primary Examiner, Art Unit 2618  
/E. Y./  
Primary Examiner, Art Unit 2618